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10/752,429	01/06/2004	Sigurd Sigbjornsen	10532-4U2	3808

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AKIN GUMP STRAUSS HAUER & FELD L.L.P.
ONE COMMERCE SQUARE
2005 MARKET STREET, SUITE 2200
PHILADELPHIA, PA 19103

EXAMINER

KHOSHNOODI, NADIA

ART UNIT	PAPER NUMBER
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2133

DATE MAILED: 06/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/752,429

Applicant(s)

SIGBJORSEN ET AL.

Examiner

Nadia Khoshnoodi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) 26-29 and 39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25, 30-38, and 40-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/1-06-2004
- 4) ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date 1/6-07-2005
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

I. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- i. Claims 1-25, 30-38, and 40-41 are drawn to executing a software program broken up into different fragments on some unit classified in class 380/255.
- ii. Claims 26-29 and 39 are drawn to access control software code on the smart card in order to determine whether or not access is permissible for the uploaded software code classified in class 713/185.

II. The inventions are distinct, each from the other because:

Inventions group 1 and group 2 are related as combination and subcombination.

Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not required the particulars of the subcombinations as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (See MPEP 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the particulars of using specific access rights in order to determine whether or not access is permissible to the uploaded software code are not recited in the combination.

The subcombination has separate utility such as determining whether the software upload should have access based on certain control parameters available on the smart card.

III. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

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IV. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their divergent subject matter, restriction for examination purposes as indicated is proper.

V. Because these inventions are distinct for the reasons given above and the search required for Group 1 is not required for Group 2, restriction for examination purposes as indicated is proper.

VI. During a telephone conversation with Clark Jablon on June 9, 2005, a provisional elections was made without traverse to prosecute the invention of group 1, claims 1-25, 30-38, and 40-41. Claims 26-29 and 39 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Specification

The specification is objected to because of the following informality: many of the reference character(s) in regards to figures 3-9 are not mentioned in the description. The disclosure should explain every element in each figure.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 15-16, 18-20, 22-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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As per claim 15:

In line 6 of claim 15, reference is made to “a program call,” where a program call has already been introduced in line 4 of the claim. Therefore it is unclear whether applicant is referring to a new program call or the one that was originally introduced in line 4, in which case “a” should be changed to “the.”

As per claims 17 and 22:

In line 6 of claims 17 and 22, reference is made to “a program call,” where a program call associated with each fragment has already been introduced in line 3 of the claims. Therefore it is unclear whether applicant is referring to a new program call or the one that was originally introduced in line 3, in which case “a” should be changed to “the.”

As per claims 18 and 23:

In line 3 of claims 18 and 23, reference is made to “a fragment” where “one or more fragments” has already been introduced in line 3 of the parent claims 17 and 22. Therefore it is unclear whether applicant intends to send a new fragment or the one that was originally introduced in the parent claims, in which case “a” should be changed to “the.”

As per claims 16, 19-20, and 24-25:

These claims are rejected by virtue of their dependency.

Claim Rejections - 35 USC § 101

I. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

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II. Claims 15-17, 21, 32-33, 36-37, and 41 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter, as they do not fall under any of the statutory classes of inventions. The language in the claims raise an issue because the claims are directed merely to an abstract idea that is not tied to an article of manufacture which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101.

As per claim 15:

This claim contains steps for a method of determining fragments of code and associating that code with a program call, where that call is inserted into the software code, but these steps are not claimed as being executed on a computer readable medium. Therefore, this claim is not instantiated into a physical implementation of an abstract idea.

As per claim 16:

Claim 16 depends from a non-statutory claim and fails to remedy the issues to render it a statutory claim.

As per claim 17:

This claim contains steps for a method of executing the first portion of software code and executing fragments of code after reaching a program call in the second portion of code, but these steps are not claimed as being executed on a computer readable medium. Therefore, this claim is not instantiated into a physical implementation of an abstract idea.

As per claim 21:

Claim 21 depends from a non-statutory claim and fails to remedy the issues to render it a statutory claim.

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As per claims 32:

The method of preparing source code for eventually compiling the code is not a positive recitation because the claim does not explicitly state that the code is compiled. Furthermore, this claim is not instantiated into a physical implementation of an abstract idea because it is not being claimed as actually executing the program, but rather preparing code.

As per claims 33 and 41:

Claim 33 and 41 depend from a non-statutory claim and fail to remedy the issues to render it a statutory claim.

As per claim 36:

Claim 36 depends from a non-statutory claim and fails to remedy the issues to render it a statutory claim.

As per claim 37:

Claim 37 depends from a non-statutory claim and fails to remedy the issues to render it a statutory claim.

Claim Rejections - 35 USC § 103

III. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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IV. Claims 1, 4-9, 12-14, 17-20, 22-24, 30, 34-38, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark et al., *BITS: A Smartcard Protected Operating System*, and further in view of Floro, U.S. Patent No. 5,410,717.

As per claims 1 and 9:

Clark et al. substantially teach a method/apparatus of executing code of at least one software program in a multi-processor computer environment, each software program including (i) a first portion of software code to be executed in a computer (page 68, col. 1 lines 43-51), and (ii) a second portion of software code the method comprising executing the second portion of code in one or more external devices which are in communication with the computer (page 68, col. 2 lines 3-22). Not explicitly disclosed by Clark et al. is the method/apparatus wherein the second portion of software code includes one or more fragments of code of the software program. However, Floro teaches a function card that holds different functions, i.e. fragments of code of the software code. Therefore, it would have been obvious to a person in the art at the time the invention was made to modify the method disclosed in Clark et al. to include one or more fragments of the software code on the smart card. This modification would have been obvious because a person having ordinary skill in the art, at the time the invention was made, would have been motivated to do so since it is suggested by Floro in col. 6, lines 2-54.

As per claim 4:

Clark et al. and Floro substantially teach the method of claim 1. Not explicitly disclosed by Clark et al. or Floro is the method wherein the fragments of code are interspersed within the first portion of code. However, Floro teaches that the different operations are interspersed within the first portion of code. Therefore, it would have been obvious to a person in the art at the time.

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the invention was made to modify the method disclosed in Clark et al. to have the fragments of code to include the operations of code which are interspersed within the first portion of code.

This modification would have been obvious because a person having ordinary skill in the art, at the time the invention was made, would have been motivated to do so since it is suggested by Floro in col. 12, line 63 - col. 13, line 57.

As per claims 5 and 12:

Clark et al. and Floro substantially teach the method/apparatus of claims 1 and 9. Furthermore, Clark et al. teach the method/apparatus wherein the second portion of code is stored in the computer, the method further comprising downloading the second portion of code into the one or more external devices prior to execution (page 68, col. 1 lines 24-42).

As per claim 6:

Clark et al. and Floro substantially teach the method of claim 1. Furthermore, Clark et al. teaches the method wherein there are a plurality of software programs on the PC (page 68, col. 2 lines 17-24), and that there are additional applications and application integrity information on the smartcard, i.e. the second portions include fragments from more than one of the software programs (page 68, col. 2 lines 17-27).

As per claims 7 and 13:

Clark et al. and Floro substantially teach the method/apparatus of claims 1 and 9 wherein the one or more external devices are tamper-resistant (page 68, col. 1 lines 31-42).

As per claims 8 and 14:

Clark et al. and Floro substantially teach the method/apparatus of claims 1 and 9. Furthermore, Clark et al. teach the method/apparatus wherein the one or more external devices

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are one or more smart cards (page 68, col. 2 lines 3-27).

As per claims 17 and 22:

Clark et al. substantially teach a method/apparatus of executing a computer program which includes software code, the software code having (i) a first portion, and (ii) a second portion, the method comprising: (a) executing the first portion (page 68, col. 1 lines 43-51). Not explicitly disclosed by Clark et al. is the second portion including one or more fragments of the software code and a program call associated with each fragment, and (b) executing the associated fragments when a program call in the second portion is reached. However, Floro teaches that the second portion has a program call associated with each operation/function, i.e. fragments, in the software code, as well as executing the associated operations/functions when a program call in the second portion is reached. Therefore, it would have been obvious to a person in the art at the time the invention was made to modify the method disclosed in Clark et al. for the second portion to include one or more fragments of software code associated with a program call where the fragment(s) are executed when the program call is reached. This modification would have been obvious because a person having ordinary skill in the art, at the time the invention was made, would have been motivated to do so since it is suggested by Floro in col. 6, lines 2-54 and col. 12, line 63 - col. 13, line 57.

As per claims 18 and 23:

Clark et al. and Floro substantially teach the method/apparatus of claims 17 and 22. Furthermore, Clark et al. teach wherein the first portion executes in a computer (page 68, col. 1 lines 43-51), and the second portion executes in an external device with respect to the computer as well as having the external device carry out the software code execution in the external device

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(page 68, col. 2, lines 3-27). Also, Floro further teaches the step (b) further comprises sending a fragment to the external device when a program call of the associated fragment is reached, and executing the fragment in the external device (col. 12, line 63 – col. 13, line 57).

As per claim 19:

Clark et al. and Floro substantially teach the method of claim 18. Not explicitly disclosed by Clark et al. or Floro is the method wherein step (b) further comprises generating a result upon execution of the fragment in the external device, the result being used during subsequent execution of the computer program. However, Clark et al. teach that the smartcard with the booting code on it must, based on the host, know which operating system to load so that an unintentional operating system is not loaded. Deciding the operating system when using the smart card for the first time would entail some information to be stored for latter use, i.e. during a subsequent execution of the computer program. Therefore, it would have been obvious to a person in the art at the time the invention was made to modify the method disclosed in Clark et al. to generate a result after executing the fragment in the external device where the result is used during a subsequent execution of the computer program. This modification would have been obvious because a person having ordinary skill in the art, at the time the invention was made, would have been motivated to do so since it is suggested by Clark et al. on page 68, col. 2 line 3 - col. 3 line 38.

As per claims 20 and 24:

Clark et al. and Floro substantially teach the method/apparatus of claims 18 and 23. Furthermore, Clark et al. teach the method/apparatus wherein the external device is a smart card

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(page 68, col. 2 lines 3-27).

As per claim 30:

Clark et al. substantially teach a method of executing a plurality of software code fragments of a software program on an external unit, wherein the external unit is connected to a computer, the external unit including a processor and a memory, the method comprising: (a) at execution time of the software code is available on the smartcard, and (b) executing the respective software code in the external unit using only the processor and the memory of the external unit (page 68, col. 1-3). Not explicitly disclosed by Clark et al. is at execution time of each of the software code fragments, automatically uploading the respective software code fragment to the memory of the external unit. However, Floro teaches a function card that holds different functions, i.e. fragments of code of the software code where the code fragments are uploaded to the function card so that the correct function can be carried out. Therefore, it would have been obvious to a person in the art at the time the invention was made to modify the method disclosed in Clark et al. to include automatically uploading one or more fragments of the software code to the smart card memory. This modification would have been obvious because a person having ordinary skill in the art, at the time the invention was made, would have been motivated to do so since it is suggested by Floro in col. 6, lines 2-54.

As per claims 34 and 35:

Clark et al. and Floro substantially teach the method/apparatus of claims 18 and 23. Furthermore, Clark et al. teach the method/apparatus of claims 1 and 9, wherein the software program is an application program (page 68, col. 2 lines 22-27).

As per claim 36:

Clark et al. and Floro substantially teach the method/apparatus of claims 18 and 23. Furthermore, Clark et al. teach the method of claim 15 wherein the computer program is an application program (page 68, col. 2 lines 22-27).

As per claims 37 and 38:

Clark et al. and Floro substantially teach the method/apparatus of claims 18 and 23. Furthermore, Clark et al. teach the method/apparatus of claims 17 and 22, wherein the computer program is an application program (page 68, col. 2 lines 22-27).

As per claim 40:

Clark et al. and Floro substantially teach the method/apparatus of claims 18 and 23. Furthermore, Clark et al. teach the method of claim 30 wherein the software program is an application program (page 68, col. 2 lines 22-27).

V. Claims 2-3, 10-11, 21, 25, 31-33, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark et al., *BITS: A Smartcard Protected Operating System* and Floro, U.S. Patent No. 5,410,717 as applied to claims 1, 9, 17, 22, and 30 above, and further in view of Chandra et al., U.S. Patent No. 4,817,140.

As per claims 2 and 10:

Clark et al. and Floro substantially teach the method/apparatus of claims 1 and 9. Furthermore, Clark et al. teach the method/apparatus wherein transferring the second portion of code to a secure computer environment (page 68, col. 1 line 43 – col. 2 line 55). Not explicitly disclosed by Clark et al. is the second portion of code is encrypted and decrypting the second portion of code in the one or more external devices prior to execution. However, Chandra et al. teach that the software code should be encrypted in order to protect the software code. Therefore,

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it would have been obvious to a person in the art at the time the invention was made to modify the method/apparatus disclosed in Clark et al. and Floro to encrypt the second portion of code for transmitting it in order to maintain the software's integrity and security, as well as to decrypt the second portion of code in the one or more external devices prior to execution. This modification would have been obvious because a person having ordinary skill in the art, at the time the invention was made, would have been motivated to do so since it is suggested by Chandra et al. in col. 2, lines 19-46.

As per claims 3 and 11:

Clark et al., Floro, and Chandra et al. substantially teach the method/apparatus of claims 2 and 10. Furthermore, Clark et al. teach the method/apparatus wherein the one or more external devices are one or more smart cards, each smart card including a processor for executing the second portion of code, the smart card being the secure computer environment (page 68, col. 1, line 43 – col. 2, line 27).

As per claims 21 and 25:

Clark et al. and Floro substantially teach the method/apparatus of claims 17 and 22. Not explicitly disclosed by Clark et al. or Floro is the method/apparatus wherein the one or more fragments are encrypted code, the method further comprising: (c) decrypting the one or more fragments prior to execution thereof. However, Chandra et al. teach that the software code should be encrypted in order to protect the software code. Therefore, it would have been obvious to a person in the art at the time the invention was made to modify the method/apparatus disclosed in Clark et al. and Floro to encrypt the fragment(s) of code in order to maintain the code's integrity and security, as well as to decrypt the fragment(s) of code prior to execution.

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This modification would have been obvious because a person having ordinary skill in the art, at the time the invention was made, would have been motivated to do so since it is suggested by Chandra et al. in col. 2, lines 19-46.

As per claim 31:

Clark et al. and Floro substantially teach the method of claim 30. Not explicitly disclosed by Clark et al. or Floro is wherein the software code fragments are encrypted, the method further comprising: (c) after step (a) and prior to step (b), decrypting the software code fragments. However, Chandra et al. teach that the software code should be encrypted in order to protect the software code. Therefore, it would have been obvious to a person in the art at the time the invention was made to modify the method/apparatus disclosed in Clark et al. and Floro to encrypt the fragment(s) of code in order to maintain the code's integrity and security, as well as to decrypt the fragment(s) of code prior to execution. This modification would have been obvious because a person having ordinary skill in the art, at the time the invention was made, would have been motivated to do so since it is suggested by Chandra et al. in col. 2, lines 19-46.

As per claim 32:

Clark et al. substantially teach a method of preparing code of a software program, the software program including (i) a first portion of code to be executed by a first processor (page 68, col. 1 lines 43-51), and (ii) a second portion of code to be executed by a second processor (page 68, col. 2 lines 3-22). Not explicitly disclosed by Clark et al. is the method/apparatus wherein the second portion of source code includes one or more fragments of code of the software program. However, Floro teaches a function card that holds different functions, i.e. fragments of code of the software code. Therefore, it would have been obvious to a person in the

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art at the time the invention was made to modify the method disclosed in Clark et al. to include one or more fragments of the software code on the smart card. This modification would have been obvious because a person having ordinary skill in the art, at the time the invention was made, would have been motivated to do so since it is suggested by Floro in col. 6, lines 2-54.

Also not explicitly disclosed by Clark et al. is the method comprising prior to compilation of the software program, encrypting only the second portion of code. However, Chandra et al. teach that the software code should be encrypted in order to protect the software code. Therefore, it would have been obvious to a person in the art at the time the invention was made to modify the method/apparatus disclosed in Clark et al. and Floro to encrypt the fragment(s) of code in order to maintain the code's integrity and security, as well as to decrypt the fragment(s) of code prior to execution. This modification would have been obvious because a person having ordinary skill in the art, at the time the invention was made, would have been motivated to do so since it is suggested by Chandra et al. in col. 2, lines 19-46:

Furthermore, although these references don't specifically point to source code¹, this is inherent as being a part of software because source code is needed in order to execute the program.

As per claim 33:

¹ The definition of "source code" as found on Free-Online Dictionary of Computing appears as pasted below:

source code

<language, programming> (Or "source", or rarely "source language") The form in which a computer program is written by the programmer. Source code is written in some formal programming language which can be compiled automatically into object code or machine code or executed by an interpreter.

(1995-01-05)

Clark et al., Floro, and Chandra substantially teach the method of claim 32. Furthermore, Clark et al. teach the method wherein the second processor is a smart card (page 68, col. 2 lines 3-27).

As per claim 41:

Clark et al., Floro, and Chandra substantially teach the method of claim 32. Furthermore, Clark et al. teach the method wherein the software program is an application program (page 68, col. 2 lines 22-27).

VI. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Floro, U.S. Patent No. 5,410,717 and further in view of Clark et al., *BITS: A Smartcard Protected Operating System*.

As per claim 15:

Floro teaches a method of transforming a computer program which includes software code, the method comprising: (a) identifying one or more fragments of the software code (col. 6, lines 21-32) and (b) associating a program call with each of the identified fragments (col. 6, lines 50-54). Furthermore, Floro teaches the method of carrying out a write operation, i.e. a function in the code, onto the function card (col. 10, lines 11-52). Not explicitly disclosed by Floro is the method comprising (c) inserting the program call into the software code, thereby transforming the software program, wherein when a program call is reached, the respective fragment of software code is executed.

However, Clark et al. teach the method of a host computer having calls associated with the boot sector program running off of a smart card. Therefore, it would have been obvious to a person in the art at the time the invention was made to modify the method disclosed in Floro to

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insert the program call into the software code to transform the software program so that when a program call is reached the respective fragment of the software code is executed. This modification would have been obvious because a person having ordinary skill in the art, at the time the invention was made, would have been motivated to do so since it is suggested by Clark et al. on page 68, col. 1 line 43 – col. 2, line 2.

VII. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Floro, U.S. Patent No. 5,410,717 and Clark et al., *BITS: A Smartcard Protected Operating System*, as applied to claim 15 above, and further in view of Chandra et al., U.S. Patent No. 4,817,140.

As per claim 16:

Clark et al. and Floro substantially teach the method of claim 15. Not explicitly disclosed by Clark et al. or Floro is the method further comprising: (d) encrypting the software code associated with the identified fragments and (e) replacing the fragments with encrypted versions of the software code. However, Chandra et al. teach the method of encrypting the software code that is being transmitted to the external device thereby replacing the code with an encrypted version of the code. Therefore, it would have been obvious to a person in the art at the time the invention was made to modify the method/apparatus disclosed in Clark et al. and Floro to encrypt the software code associated with the identified fragments thereby replacing the fragments with encrypted versions of the software code in order to maintain the software's security. This modification would have been obvious because a person having ordinary skill in the art, at the time the invention was made, would have been motivated to do so since it is suggested by Chandra et al. in col. 2, lines 19-46.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nadia Khoshnoodi whose telephone number is (571) 272-3825. The examiner can normally be reached on M-F: 8:00-4:30.

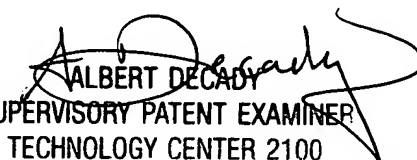
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Nadia Khoshnoodi
Examiner
Art Unit 2133
6/21/2005

NK



ALBERT DECADY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100